Claims 1-13 remain pending in the subject application.

Applicant respectfully requests reconsideration and examination of Claims 1-13 in view of the amendments above and the arguments below.

By way of this response, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the examiner telephone Leo J. Peters at (408)433-4578 so that such issues may be resolved as expeditiously as possible.

Response to the rejection under 35 U.S.C. § 103

Claims 1-4 and 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thiebeault ("On the Comparison of ΔIDDQ and IDDQ Testing")(*Thiebeault*) and further in view of Sabade et al. ("Improved wafer-level spatial analysis for IDDQ limit setting")(*Sabade*). Applicant traverses the rejection as follows.

***Thiebeault* does not disclose the claimed identical relative location**

The rejection errs on page 2 by alleging that *Thiebeault* discloses in column 3, lines 9-16 the claimed calculating a difference between a value of the selected parameter at a target location and that of an identical relative location with respect to the target location for each of the plurality of electronic circuits to generate a distribution of differences. The IDDQ difference considered

by *Thiebeault* in equation (1), which is representative of the lines cited by the rejection, is a differential between a vector location (*i*) and a neighboring, that is, adjacent, vector location (*i*-1). However, the pair of adjacent vector locations disclosed in *Thiebeault* used to calculate differences is not equivalent to the claimed identical relative location as alleged by the rejection.

An adjacent location by definition differs from the target location by only one unit in vector distance, that is, each pair of location vectors considered in *Thiebeault* may be represented as two adjacent location vectors (*i*) and (*i*-1). In contrast, the claimed identical relative location is independent of vector distance. An example of the claimed identical relative location is described in the specification on page 7, lines 9-24 as (-5,10), that is, 5 units in the negative X direction and 10 units in the positive Y direction. The vector distance represented by the exemplary relative location of (-5,10) is about 11 units, which clearly is not the single unit vector distance difference disclosed in *Thiebeault*. Clearly, the adjacent location taught by *Thiebeault* does not teach or suggest the claimed identical relative location that is independent of vector distance.

Further, the adjacent location taught in *Thiebeault* includes, for example, relative coordinates (1,0) from one target location and relative coordinates (0,1) from another target location, because both relative coordinates (1,0) and (0,1) differ from the corresponding target location by only one unit in vector distance. Although the relative coordinates (1,0) and (0,1) each describe adjacent locations with respect to the corresponding target locations, the relative coordinates (1,0) and (0,1) are clearly not identical. In contrast to *Thiebeault*, the claimed identical

relative location of (-5,10) with respect to a target location remains the same with respect to each target location and therefore may not vary from one target location to another. For example, a relative location (-5,10) with respect to one target location requires a relative location of (-5,10) with respect to another target location to satisfy the claimed limitation of "identical". Clearly, the adjacent location taught by *Thiebeault* does not teach or suggest the claimed identical relative location.

Because the claimed identical relative location is independent of vector distance and is limited to the identical relative location with respect to each target location, the adjacent location disclosed in *Thiebeault* is not equivalent to the claimed identical relative location. Because the adjacent location disclosed in *Thiebeault* is not equivalent to the claimed identical relative location, and because *Thiebeault* does not teach or suggest the claimed identical relative location, the rejection fails to arrive at the claimed invention.

Likewise, *Sabade* teaches an IDDQ differential between neighboring, or adjacent, vector locations (see, for example, section 3 in column 4) that are by definition dependent on distance according to the commonly understood meaning of the term "neighboring". Further, the neighboring locations in *Sabade* are not limited to the identical relative location with respect to each target location as recited in Claims 1-4 and 8-10. Because neither *Thiebeault* nor *Sabade* teach or suggest the claimed identical relative location, the rejection fails to arrive at the claimed invention. Because the rejection fails to arrive at the claimed invention, Claims 1-4 and 8-10 are not obvious over *Thiebeault* under 35 U.S.C. § 103(a).

The fee for one additional independent claim is included with this amendment.

In view of the above, Applicant submits that Claims 1-13 are in condition for allowance, and prompt and favorable action is earnestly solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

The following like-numbered claims have been replaced:

5. (amended) A method of detecting variations in a spatially correlated parameter comprising:

measuring a selected parameter of each of a plurality of electronic circuits replicated on a common substrate;

calculating a difference between a value of the selected parameter at a target location and that of an identical relative location with respect to the target location for each of the plurality of electronic circuits to generate a distribution of differences;

calculating an absolute value of the distribution of differences;

calculating an average of the absolute value of the distribution of differences to generate a representative value for the residual for the identical relative location; and

[~~The method of Claim 1 further comprising~~] performing a lot averaging for each wafer X-Y coordinate so that a new set of best estimates is re-calculated for each X-Y position.

6. (amended) A method of detecting variations in a spatially correlated parameter comprising:

measuring a selected parameter of each of a plurality of electronic circuits replicated on a common substrate;

calculating a difference between a value of the selected parameter at a target location and that of an identical relative location with respect to the target location for each

of the plurality of electronic circuits to generate a distribution of differences;

calculating an absolute value of the distribution of differences; and

calculating an average of the absolute value of the distribution of differences to generate a representative value for the residual for the identical relative location [~~The method of Claim 1~~] wherein the common substrate comprises a plurality of common substrates wherein best estimates for a given X-Y location are identical to those of a corresponding location on another of the plurality of common substrates. [~~This technique may be improved by re-ordering the wafers in the sequence in which they were processed to ensure more accurate estimation.~~]